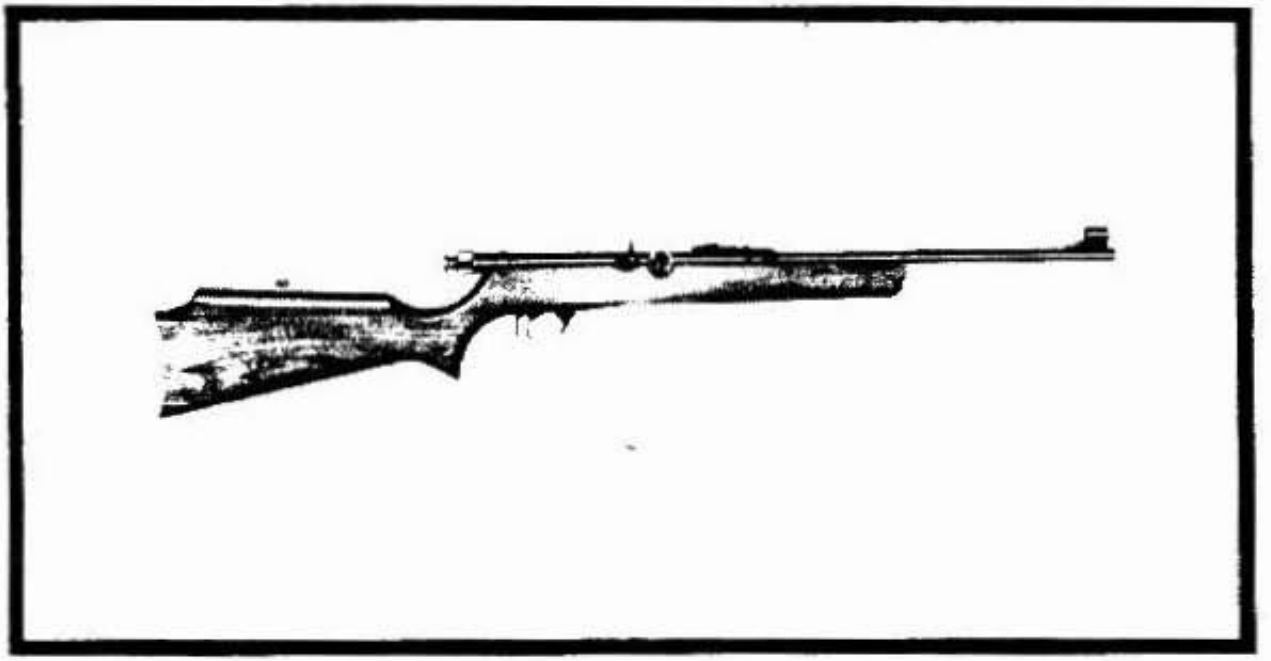
Crosman

FACTORY SERVICE MANUAL

MODEL

700 - .22 Cal. CO_2 Rifle (1968)

707 - .177 or BB CO_2 Rifle (1968)



This manual is intended primarily as an informational guide in servicing Crosman products. It is not intended as instructional material and we therefore assume no responsibility for those who use same without proper factory training.

Crosman

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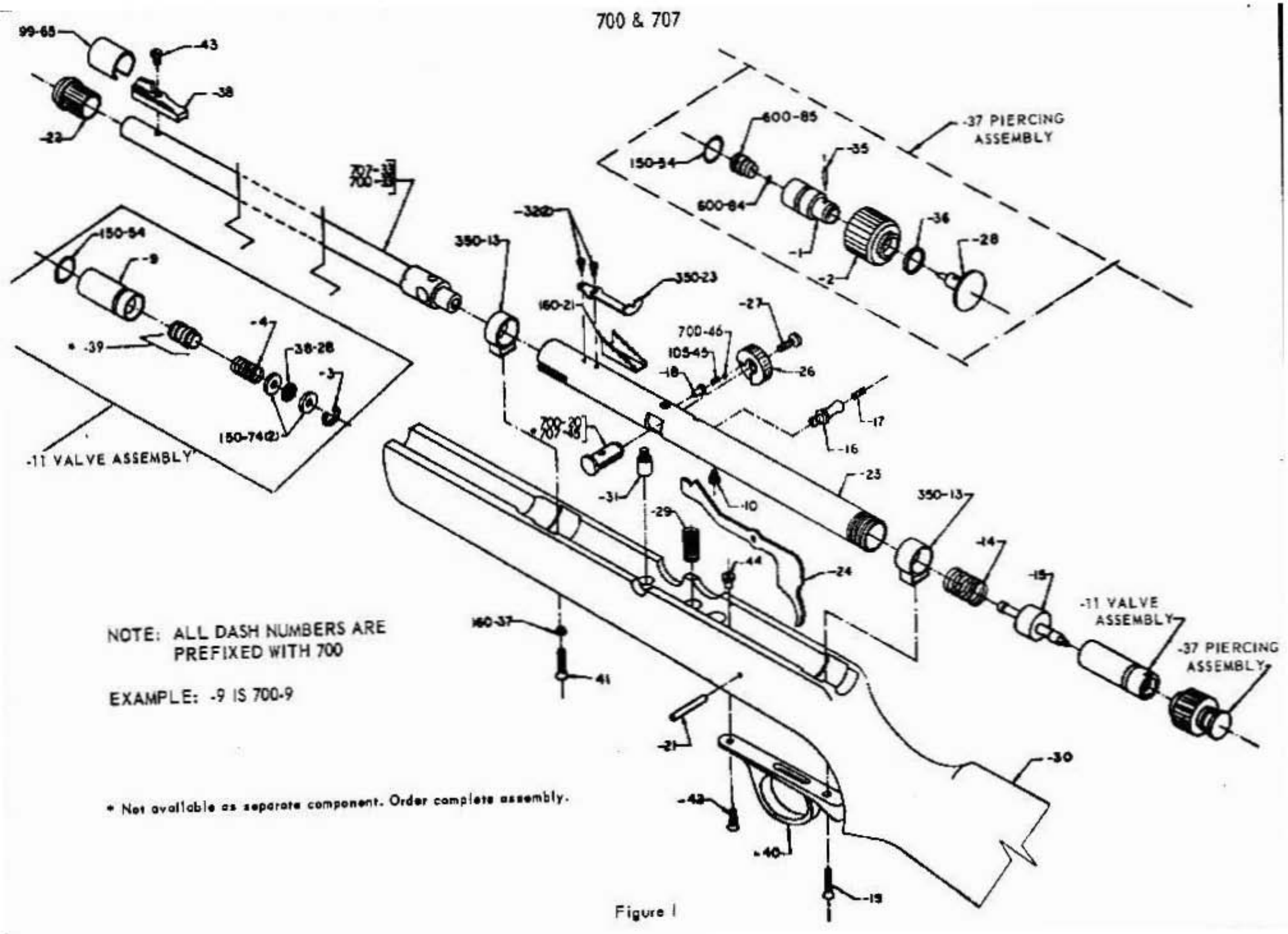

NOTE: ALL DASH NUMBERS ARE PREFIXED WITH 700

EXAMPLE: -9 IS 700-9

* Not available as separate component. Order complete assembly.

Figure 1

PARTS LIST and assemblies for: 700 & 707 (Prices effective: 10/1/68)

PART NO.	DESCRIPTION	LIST PRICE
38-28	Valve Screen	.30
99-65	Sight Hood (Front)	.20
105-45	Detent Spring	.10
150-54	No. 11 Seal	.30
150-74	Washer	.10
160-21	Sight Elevator	.15
160-37	Lock Washer	.10
350-13	Collar	.35
350-23	Sight (rear)	.20
600-84	Piercing Pin Seal	.40
600-85	Piercing Retaining Nut	.45
700-1	Piercing Body	1.30
700-2	Piercing Cap	.70
700-3	Valve Retaining Ring	.10
700-4	Valve Spring	.10
700-9	Valve Body	2.65
700-10	Valve Retaining Screw	.20
700-11	Valve Assy. (complete)	6.20
700-14	Hammer Spring	.20
700-15	Hammer	3.40
700-16	Cocking Knob	.85
700-17	Cocking Knob Lock Screw	.20
700-18	Detent Retainer	.10
700-19	Trigger Guard Screw (rear)	.15
700-20	Loader Stem (Mod. 700 Cal. 22)	1.55
700-21	Trigger Pin	.10
700-22	Barrel Bushing	.85
700-23	Breech Tube	4.45
700-24	Trigger	.55
700-26	Rotary Loader Knob	.50
700-27	Loader Knob Screw	.10
700-28	Piercing Pin	.85
700-29	Trigger Spring	.10
700-30	Stock (Monte Carlo)	14.25
700-31	Retaining Screw (barrel)	.25
700-32	Sight Screw (rear) (2)	.10
700-33	Barrel Assy. (Mod. 700 Cal. 22)	8.45
700-35	Pin (piercing Assy.)	.10
700-36	Spacer (piercing Assy.)	.15
700-37	Piercing Assy. (complete)	5.90
700-38	Sight (front) without hood	1.05
*700-39	Valve Spool Assy.	1.90
700-40	Trigger Guard	.50
700-41	Barrel Band Screw	.10
700-42	Trigger Guard Screw	.10
700-43	Sight Screw (front)	.20
700-44	Trigger Guard Nut	.10
700-46	Detent Ball	.10
707-33	Barrel Assy. (Mod. 707 Cal. 177)	8.45
*707-45	Loader Stem Assy. (Mod. 707 Cal. 177)	3.15

* Factory assembled parts. Do not order component parts to these assemblies.

KEEP PRICE LIST CURRENT - make additions or corrections to this list on reverse side.

I. GENERAL INFORMATION:

A. General operating instructions for this model are contained in the "Owner's Manual" which is attached to each product (read it carefully).

B. Study the drawing carefully as you read disassembly and assembly procedures and prior to disassembling your first gun.

C. Assembly is in reverse of disassembly but, careful note must be made of "CAUTION" procedures throughout this section in order that you do not encounter problems after complete reassembly.

D. Instructions are defined in assembly groups such as Stock Group, Valve Removal Group etc. There are many short cuts for repairs and it is not necessary that the entire gun be disassembled every time.

E. The basic action and design of this gun is a major improvement over previous designs in that a straight inline valve and breech-barrel combination has proven the most efficient system for valve performance, accuracy and sustained gas efficiency.

F. TROUBLE SHOOTING:

1. JAMMING:

a. Shooting to the end of the CO_2 Powerlet when insufficient gas is available to drive pellet (or BB) out of barrel.

b. Attempting to fire a BB inserted in skirt of pellet.

c. Inferior BB's (Mod. 707), oversize, reused, out-of-round or flaking.

2. POSSIBLE CAUSES OF LEAKS:

a. Possible metal chips or damaged valve stem spool face. See Figure I, -39.

b. Damaged brass valve seat inside valve body (-9).

c. Damaged or dry seals (150-54 on valve body or piercing assy.).

d. Use of excessive or wrong oils for seals causing deterioration. (Use Crosman Pellgunoil only).

e. Check all screws and assure tightness.

CAUTION:

1. Be sure to discharge all CO_2 gas before disassembling any part of the gun.

2. Always remove tube cap 700-37 when repairing gun.

3. Inspect all parts when they are removed for any damage or defects.

4. If gun becomes jammed, do not drive pellets back into rotary magazine; remove with pellet extractor rod.

5. If gun jams again, remove rotary magazine and look through barrel. There may be an outer shell of a pellet left in the barrel if extractor pulled out the center.

6. For best method of clearing jammed pellets or BB's from barrel, we recommend removal of 700-20, 707-45 loading stem. Re-install very carefully as this is a very close tolerance fit part.

II. DISASSEMBLY AND ASSEMBLY:

A. STOCK GROUP:

1. Remove the front barrel band screw, #700-41 and rear trigger guard screw #700-19, which is longer than the front screw.

2. Making sure that the trigger is not engaged, remove the stock #700-30 from the tube and barrel assembly.

B. TRIGGER AND GUARD GROUP:

1. Remove the trigger guard screw #700-42 and the guard #700-40.

2. Clamp the stock in a vise and drive the trigger pin #700-21 out of the stock.

I. DISASSEMBLY AND ASSEMBLY: (cont'd)

3. Remove the trigger #700-24 by pulling the trigger through the bottom of the stock (ONLY).
4. Turn the stock over and drop the trigger spring #700-29 out of the stock.
5. Remove the trigger guard nut #700-44 (if necessary), by punching out from the bottom of the stock.

NOTE: Assemble stock, trigger and guard group in reverse order.

C. BARREL, TUBE AND VALVE GROUP:

NOTE: If only valve has to be removed, follow valve removal group only.

1. Remove the collars (2) #350-13, slide front collar forward over the barrel and rear collar completely off the rear of the tube.
2. NOTE: The rear sight must be removed before you attempt to remove the barrel.
3. Lay the tube and barrel assembly down on the bench with the loader knob #700-26 facing you.
4. Remove screw #700-27.
5. Lift the loader knob #700-26 off #700-20 or #707-45, being careful to not lose the detent ball.
6. Remove the detent ball #700-46 and detent spring #105-45 from detent retainer #700-18.
7. Remove the loader stem #700-20 or #707-45 by pulling it out of the left side of the tube.
8. Then clamp the tube in a vise upside down.
9. Remove the barrel retaining screw #700-31.
10. Push the barrel back in order to release the spring tension on the detent retainer #700-18.
11. Using pliers, pull out the detent retainer, NOTE: There are no threads on or in the retainer.
12. Pull barrel assembly #700-33 or 707-33 out of tube 700-23.
13. NOTE: The rear barrel bushing is pressed on and cannot be removed.

D. HAMMER & HAMMER SPRING GROUP:

1. Leaving the tube in the vice, note that there is a hole in the end of the cocking knob (700-16). This hole contains a 1/16" allen head lock screw which must be loosened before removing knob. A wrench may be needed to remove knob.

2. Remove the tube from the vice and allow the hammer spring 700-14 and hammer 700-15 to slide out of the slotted front end of the tube.

3. Remove valve retaining screw 700-10 and push valve assembly out of rear of tube only.
4. Reassemble in reverse order.

CAUTION: When inserting loader stem part #700-20 or #707-45, align it perfectly and push in with fingers. It should slide in easily. DO NOT FORCE OR DRIVE IN WITH HAMMER as it will damage loader stem hole and thus require barrel replacement.

E. VALVE REMOVAL GROUP:

1. Remove the tube and barrel assembly from the stock as instructed in the STOCK GROUP.
2. Place the barrel in a vise with the tube turned upside down.
3. Remove the valve retaining screw #700-10.
4. Remove the cocking knob 700-16 as instructed in Hammer and Hammer Spring Group.
5. Use a push rod, size 5/32 and 25" long. CAUTION: Make sure that this rod is flat at the end and not tapered, to prevent damage to the hammer stem #700-15.
6. NOTE: Turn the rotary loading knob #700-26 in to shoot position.
7. Slide the push rod into the muzzle end of the barrel, through the loader and against the hammer.
8. Push firmly against the hammer and hammer spring and allow the valve assembly #700-11 to slide out of the rear of the tube.

II. DISASSEMBLY AND ASSEMBLY: (cont'd)

9. Then allow hammer and hammer spring to slide out of rear of tube.

F. VALVE DISASSEMBLY GROUP:

A pair of snap ring pliers should be used to disassemble this valve. (#700-11) which incedently is designed and engineered completely different from our older design. NOTE: This valve contains only seven different parts.

1. Remove the valve retaining ring #700-3 by placing a pair of snap ring pliers on the valve retainer ring.

CAUTION: There is considerable compression against this retainer ring, so be careful not to lose parts.

2. When this is done, you can drop all the parts out.

3. Check the valve spool assembly #700-39 for chips, dents or cracks in the rubber washer where the gas may escape.

4. Check the valve seat in the valve body #700-9 for chips or dents on the seat.

5. The "O" Ring #150-54, on the outside of the valve body #700-9, should be checked for dents and scratches.

G. VALVE REASSEMBLY GROUP:

1. Roll the "O" ring #150-54 over the valve body 700-9.

2. Set the valve body up on the bench and drop in the valve spool assembly #700-39.

3. Drop in the valve spring #700-4.

4. Place the screen 38-28 between the two metal washers #150-74 and set them on top of the spring #700-4.

5. Using the snap ring pliers, place the valve retainer ring 700-7 over the metal washer and hold there.

6. Using a 5/16" punch or rod, (CAUTION: Do not use a punch smaller then 5/16") place through retainer ring #700-3 and press washers and spring down past the ring groove and allow the ring to snap into place.

H. VALVE REPLACEMENT GROUP:

1. Replace Hammer Spring -14 and Hammer -15 (Refer to Figure I).

2. Always oil "O" ring #150-54 before you slide valve in tube.

3. Slide valve into the rear of the tube (only) with a wooden dowel or metal rod.

CAUTION: This rod should not be smaller than 5/8" in diameter (smaller rod will damage screen). The T-9 Valve tool is ideal for this as the valve can be pushed in and aligned in one operation.

I. PIERCING CAP DISASSEMBLY GROUP (ASSEMBLY PART #700-37)

This piercing assembly contains two working "O" rings. The large one 150-54, prevents the gas from leaking around threaded part of tube. The small one 600-84 Piercing Pin Seal, keeps the gas from leaking under piercing button.

1. To remove "O" Ring #150-54, use a sharp pointed tool, break the "O" Ring and pull it out.

2. NOTE: When you replace the 150-54 "O" Ring, you must roll the "O" Ring over the piercing body #700-1 up to the piercing cap. Then using a small flat punch, press "O" ring (evenly) down into groove. If you have a problem replacing the "O" ring, you will have to disassemble piercing assembly. See (6) below.

3. To remove 600-84 piercing pin seal or "O" ring, remove 600-85 retaining nut.

4. Remove 600-84 "O" ring with a sharp tool or large pin.

5. To replace piercing seal or "O" ring, oil the pin and the seal. Then drop the "O" ring over the piercing pin. The retaining nut should then be placed over the piercing pin and turned on. NOTE: Make certain that seal is in place by turning nut back out to see if it is located properly. Then turn nut back on and tighten.

6. Disassemble piercing assembly (as follows):

II. DISASSEMBLY AND ASSEMBLY: (cont'd)

7. Put piercing assembly 700-37 in vise and drive out roll pin 700-35. Use hardwood block to line vise so as not to damage button of 700-28.
8. Pull out piercing pin 700-28.
9. Remove piercing spacer ring 700-36, and piercing cap 700-2.
10. Remove retaining nut 600-85 with large screw driver.
11. "O" rings 600-84 and 150-54 can now be removed and replaced.

J. NOTES OF CAUTION FOR REASSEMBLY:

1. All parts should be inspected before reassembling them.
2. NOTE: When replacing piercing pin seal 600-84, these steps should be taken:
   a. Place oiled "O" ring 600-84 in groove and turn retaining nut 600-85 in piercing body 700-1. (CAUTION: DO NOT TIGHTEN)
   b. Place piercing cap 700-2 over piercing body 700-1.
   c. Place piercing spacer ring over piercing body against piercing cap.
   d. Insert piercing pin and line up holes in piercing pin and piercing body.
   e. Insert roll pin and drive into place.
   f. Tighten retainer nut 600-85.

III. COMMENTS:

(Use the following space for additional notes, pen and ink changes and other factory revisions)